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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,963

11/26/2003

Judy Lynn Westby

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EXAMINER

BAKER, STEPHEN M

ART UNIT

PAPER NUMBER

2112

MAIL DATE

DELIVERY MODE

06/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,963

Applicant(s)

WESTBY ET AL.

Examiner

Stephen M. Baker

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-21, 24-29, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 22, 23 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 18-32 are objected to because of the following informalities: In claim 18, the comma in line 3 is apparently unnecessary. All new claims must be underlined in their entirety. See 37 CFR 1.173(d). Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18-21, 24-29, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,668,809 to Rostoker *et al* (hereafter "Rostoker").

Rostoker discloses a single-chip hub (50) which is an ATM network controller ("ATMizer") providing a plurality of serial ATM link ports (62). A single-chip router is also disclosed by Rostoker (Fig. 36). All ATM cell headers are protected with HEC bits, and some cells, carrying segmented packets of a different protocol, are further protected with CRC10 or CRC32 bits. Accordingly, Rostoker's hub (50) provides a system comprising "a first serial device having n ports, each port supporting a serial communications path that carries, a data protection code within data transmissions on the serial communications path." An ATM cell is a form of "packet" and Rostoker's hub

(50) also includes a packet memory in the form of on-chip cell buffers (column 10, lines 34-37) and a Virtual Channel RAM (VCR 56) for segmentation and assembly of AAL5 CS-PDU cell groups (column 18, lines 10-19) providing "an on-chip memory located in the first serial device that receives a packet and the received packet's associated data protection code from the serial communications path." Rostoker's AAL5 CRC32 calculation logic operates on cell data in the RAM 56, thus providing "an integrity apparatus that uses the received, associated data protection code for data-integrity checking of the received packet that is in the on-chip memory."

Regarding claims 20 and 24, a host computer, *i.e.* a workstation RAM or disk thereof, coupled to Rostoker's single-chip hub (50), provides a "data storage device operatively coupled to the first serial device." A second workstation on the ATM network provides "a computer system having a second serial device, wherein the second serial device is operatively coupled to the first serial device in a serial communications path in order to transfer data between the first and second serial devices through the serial communications path."

Regarding claims 21, 25-27 and 31, in addition to AAL5 reassembly using only the on-chip "buffer" (VCR 56), Rostoker's AAL5 packet reassembly, including CRC32 checking, can apparently also operate on cells stored in off-chip memory (column 23, lines 5-6). Rostoker's disclosed AAL5 reassembly thus also can involve "receiving a packet from the serial communications path" then "storing the received packet, including the data protection code, into a buffer" followed by "moving the received packet to a separate memory that is separate from the buffer" and "checking the received packet for

accuracy by verifying the data protection code while moving the received packet to the separate memory” as partial CRC32 calculations are performed on each cell by the on-chip DMA apparently before each cell in an AAL5 CS-PDU has been received and transferred to off-chip memory.

Regarding claim 29, Rostoker's CRC23 generation apparently takes place once the CS-PDU is loaded into the memory (56).

Allowable Subject Matter

4. Claims 1-17 are allowed.
5. Claims 22, 23 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (571) 272-3814. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen M. Baker
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smb

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